

NGST

NGST STUDY

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April 15, 1996



NGST

STRATEGY

- PRODUCE A STUDY REPORT 8/97 THAT IS INPUT TO THE DECADAL REVIEW
 - DEMONSTRATE THAT AN NGST CAN BE BUILT AND FLOWN FOR GREAT SCIENCE AND ACCEPTABLE LIFE CYCLE COSTS
 - IDENTIFY KEY TECHNOLOGIES THAT MUST BE DEVELOPED AND DEMONSTRATED
- PRODUCE AN INTERIM STUDY REPORT 11/96 THAT IS A POWERFUL PRECURSOR
 TO THE FINAL REPORT

THESE REPORTS ARE ESSENTIALLY PROPOSALS TO SCIENCE, INDUSTRY, AND GOVERNMENT FOR PROCEEDING WITH THE DEVELOPMENT OF AN NGST.

(AN NGST WILL <u>NOT</u> BE PROPOSED. *FEASIBILITY* OF AN NGST <u>WILL</u> BE PROPOSED)



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STUDY OUTLINE

- **Executive Summary**
- The Big Picture: How does a Large Telescope fit into the US and World Astronomy Programs?
 - Linkage to ExNPS a

 - Linkage to HST, SOFIA, SIRTF, others
 Linkage to Space Shuttle and Station (if so)
 The Science Drivers

- Study Methodology The Selected Architecture
- **The Suite of Instruments**
- **7.**
- Subsystem Options Retained/Eliminated Management and Procurement Methods
- **Cost Estimates**
- 10. Alternative Architectures
- 11. High Risk/High Payoff Technology Demonstrations
- 12. Options for International Collaborations
- 13. Recommendations
- 14. Breaking the Hubble Paradigm

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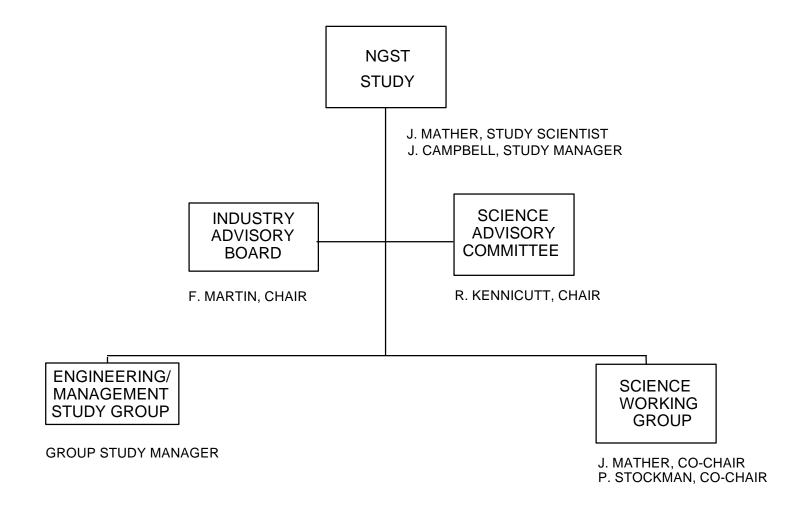
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STUDY ORGANIZATION



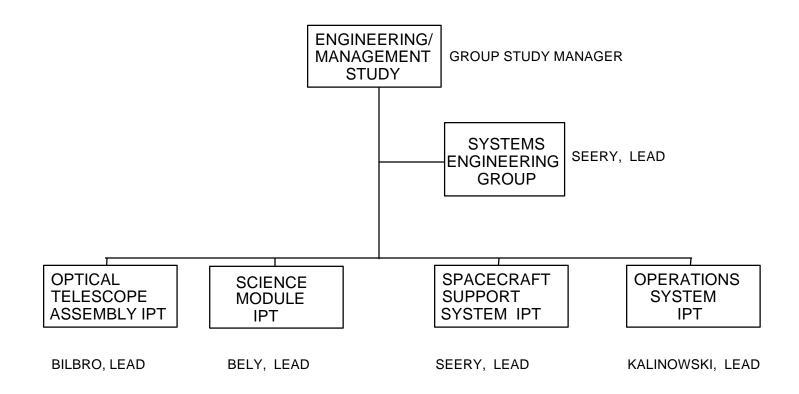
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ENGINEERING/MANAGEMENT STUDY ORGANIZATION



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ACCESS TO THE BROAD COMMUNITY

- UNIVERSITIES: SCIENCE WORKING GROUP, SCIENCE ADVISORY GROUP, AND IPT'S, ESPECIALLY THE SCIENCE MODULE IPT
- DOD: PHILLIPS LABORATORY IS PARTICIPATING
- INDUSTRY: INDUSTRY ADVISORY BOARD, ALL OF THE IPT'S
 - APRIL 15 APRIL 17 LARGE OPTICS WORKSHOP AT MSFC
 - APRIL 18 COOPERATIVE AGREEMENT NOTICE
- OTHER CENTERS: MSFC, AMES, LANGLEY AND JPL ARE WITH US
- INTERNATIONAL: THE HST ESA/NASA PARTNERSHIP IS A NATURAL ENTRÉE TO AN NGST PARTNERSHIP
 - OTHER COLLABORATIONS WILL BE ENCOURAGED

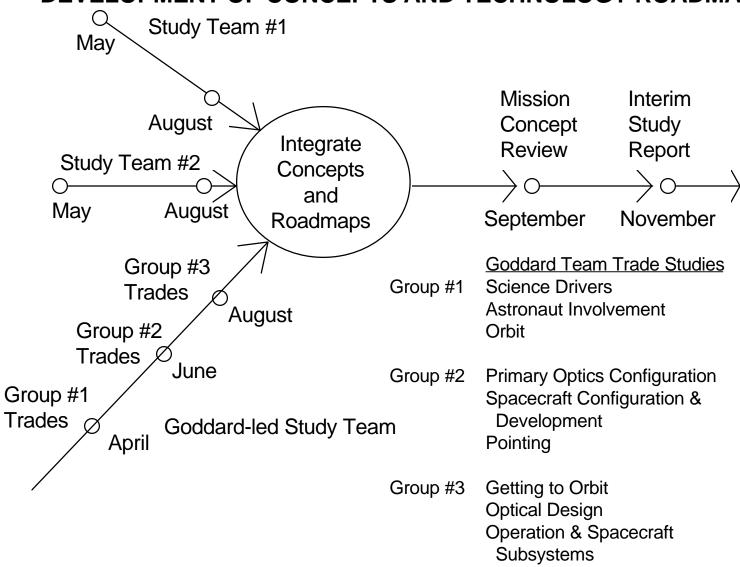


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NGST ROADMAP COOPERATIVE AGREEMENT

- ESTABLISH FEASIBILITY OF DEVELOPING NGST
 - MEETS THE SCIENCE GOALS OF "HST & BEYOND" COMMITTEE
 - LAUNCH IN 2005 TIMEFRAME WITH 10 YEAR LIFE
 - \$900M LIFECYCLE COST AND \$135 TECHNOLOGY DEVELOPMENT
- \$200K FIXED PRICE FOR EACH AGREEMENT FOR UP 2 TEAMS
- SCHEDULE
 - 4/18 RELEASE
 - 5/9 PROPOSALS DUE
 - 5/23 SELECTION
 - 8/15 REPORT DUE

DEVELOPMENT OF CONCEPTS AND TECHNOLOGY ROADMAP



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